



**FOLEY
HOAG** LLP
ATTORNEYS AT LAW

January 20, 2004

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By Hand

Ms. Mary L. Cottrell
Secretary
Department of Telecommunications & Energy
One South Station
Boston, MA 02110

Re: D.T.E. 03-83
Petition of USGen New England, Inc.

Dear Ms. Cottrell:

On behalf of USGen New England, Inc. ("USGenNE"), I enclose for filing in the above-referenced docket one original and one copy of USGenNE's Record Requests DTE-RR-1 through DTE-RR-5.

Kindly date stamp the enclosed copy of this letter, and return same to our messenger.

Thank you for your attention to this matter.

Sincerely,


Mary Beth Gentleman

MBG:jrd
Enclosures

cc: Selma Urman, Hearing Officer (1 copy)
Diedre Matthews, Director, Siting Division (1 copy)
William Febiger, Technical Director, Siting Division (1 copy)
Jolette Westbrook, General Counsel, Siting Board (1 copy)
Amy Barad, Analyst, Siting Division (1 copy)
Louis M. Arak, Project Manager (1 copy)
Service List

16/374849.1

USGen New England, Inc.
Salem Harbor Station
DTE 03-83
Record Request DTE-RR-1
Responsible Person: Philip C. Smith
Date: January 20, 2004

DTE-RR-1: Please indicate the assumed sizes of Mystic Units 4, 5, and 6, New Boston, and Salem Units 1 to 4 for the purposes of ISO's LOLE analysis in the November 13, 2003 RTEP03 Report.

Response: The capacity assumptions used in ISO's LOLE analysis in RTEP03 for the above-referenced units are shown in the attached Appendix Tables 1.11 and 1.16 of the Appendices to the RTEP03 Report. The complete RTEP03 Appendices can be viewed on the ISO webpage with use of a TEAC Participant password. The Company understands that the Department and all parties in this case are TEAC Participants.

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the RAA. Appendix Table 1.15 shows the RTEP Sub-area, ratings and assumed retirement dates of the generating units in the RTEP03 Reference Case.

**Appendix Table 1.15
Assumed Generating Unit Retirements in RTEP03 Reference Case**

Unit Name	RTEP03 Sub-area	Summer MW	Winter MW	Date of Retirement
Devon 7 & 8	SWCT	213.84	215.19	June 1, 2003
New Boston 1	BOSTON	350.00	352.40	June 1, 2003
Total		563.84	567.59	June 1, 2003

Appendix Table 1.16 shows the RTEP Sub-area, ratings and assumed retirement dates of the generating units in the RTEP03 RAA Retirement Cases.

**Appendix Table 1.16
Assumed Generating Unit Retirements in RTEP03 Retirement Cases**

Unit Name	RTEP03 Sub-area	Summer MW	Winter MW	Date of Retirement
Mystic 4, 5, and 6	BOSTON	298.77	280.48	January 1, 2003
New Boston 1	BOSTON	350.00	352.40	January 1, 2003
Salem Harbor 1, 2, 3, and 4	BOSTON	742.29	743.50	January 1, 2003
Total	BOSTON	1381.06	1376.38	January 1, 2003

1.2.4.4. Tie Reliability Benefits

Hydro-Quebec Interconnection Capacity Credit, and tie reliability benefits from New Brunswick and New York assumed for RTEP03 are tabulated in Appendix Table 1.17 below:

**Appendix Table 1.17
HQICC and Tie Reliability Benefit Assumptions - MW**

	Hydro-Quebec (Interconnection Credit)	New Brunswick (Tie Benefits)	New York (Tie Benefits)
June – September 2003	1,100	200	600
October 2003 – May 2004	0	0	0

1.2.4.5. Generator Unit Availability Data

Existing Capacity - Generator unit availabilities are based on a 5-year average of historical data (1998-2002). The ISO New England *Unit Availability Database* is the primary source of this information. Sources that populate this database include:

**Appendix Table 1.18
Data Sources**

Year	Availability Data Source
1998	NABS (NEPOOL Automated Billing System)
Jan - April 1999	NABS
May - Dec 1999	Short Term Outage Database and Annual Maintenance Schedule
Jan - April 2000	Short Term Outage Database and Annual Maintenance Schedule
May - Dec 2000	Unit Availability Database
2001	Unit Availability Database
2002	Unit Availability Database

Adjustments to the above data sources were made to address extended nuclear unit outages in the mid-to late 1990's. For any nuclear unit outage greater than six months, a combination of data

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Appendix Table 1.10
Load Forecast Uncertainty Modeled in GE MARS For RTEP03.

Multipliers	Probability	0.0060	0.0610	0.2420	0.3820	0.2420	0.0610	0.0060
	JAN	1.0560	1.0331	1.0165	1.0000	0.9835	0.9669	0.9440
	FEB	1.0484	1.0331	1.0165	1.0000	0.9835	0.9669	0.9440
	MAR	1.0457	1.0286	1.0143	1.0000	0.9857	0.9714	0.9516
	APR	1.0255	1.0270	1.0135	1.0000	0.9865	0.9730	0.9543
	MAY	1.0784	1.0151	1.0075	1.0000	0.9925	0.9849	0.9745
	JUN	1.0785	1.0464	1.0231	1.0000	0.9769	0.9536	0.9216
	JUL	1.0954	1.0465	1.0231	1.0000	0.9769	0.9535	0.9215
	AUG	1.0892	1.0565	1.0281	1.0000	0.9719	0.9435	0.9046
	SEP	1.0889	1.0528	1.0263	1.0000	0.9737	0.9472	0.9108
	OCT	1.0160	1.0526	1.0262	1.0000	0.9738	0.9474	0.9111
	NOV	1.0442	1.0094	1.0047	1.0000	0.9953	0.9906	0.9840
	DEC	1.0409	1.0261	1.0130	1.0000	0.9870	0.9739	0.9558

For the Economic Congestion and the Air Emissions Analyses, load forecast uncertainty was not modeled.

1.2.4. Capacity

1.2.4.1. Existing Generating Units

Generating capacity is consistent with the values published in the 2003 CELT. Approximately 200 MW of “Settlement Only” units were not modeled in this study. All generating units, along with their capacity ratings (summer and winter), their location by RTEP Sub-area, primary fuel type, and unit type are listed in Appendix Table 1.11. Appendix Table 1.12 provides a definition of the acronyms used in Appendix Table 1.11.

Appendix Table 1.11
NEPOOL Generating Units by RTEP03 Sub-area

Asset ID	Unit Name	Unit Type	RTEP Sub-area RTEP03	Primary Fuel	Winter Rating (MW)	Summer Rating (MW)
1216	MAINE INDEPENDENCE STATION	CC	BHE	NG	543.72	493.72
1288	BUCKSPORT ENERGY	CC	BHE	NG	193.13	164.76
332	BAR HARBOR DIESELS 1-4	IC	BHE	FO2	8.60	7.90
407	EASTPORT DIESELS 1-3	IC	BHE	FO2	3.05	2.60
475	MEDWAY DIESELS 1-4	IC	BHE	FO2	8.65	7.95
534	PENOBSCOT RIVER HYDRO	HD	BHE	H2O	22.07	22.07
616	WEST ENFIELD	HD	BHE	H2O	18.22	11.41
405	ELLSWORTH HYDRO	HW	BHE	H2O	8.82	8.83
424	GREAT NORTHERN	HW	BHE	H2O	18.95	20.45
424	GREAT NORTHERN UPGRADE	HW	BHE	H2O	100.00	100.00
445	INDECK WEST ENFIELD	ST	BHE	WD	25.53	25.18
446	INDECK JONESBORO	ST	BHE	WD	26.15	26.86
536	PERC-ORRINGTON 1	ST	BHE	REF	21.16	20.85
629	WORCESTER ENERGY	ST	BHE	WD	-	-
1108	CHAMPION	ST	BHE	BIO	32.70	32.70
TOTAL BHE					1,030.75	945.28
1672	KENDALL CT	CC	BOSTON	GAS	170.00	170.00
612	WATERS RIVER JET 1	GT	BOSTON	NG	20.00	14.00
472	M STREET JET	IC	BOSTON	JF	68.10	50.00
417	FRAMINGHAM JET 1	JE	BOSTON	FO2	13.84	9.79
418	FRAMINGHAM JET 2	JE	BOSTON	FO2	14.05	10.05
419	FRAMINGHAM JET 3	JE	BOSTON	FO2	12.87	9.37
452	KENDALL JET 1	JE	BOSTON	JF	20.39	15.39
453	KENDALL JET 2	JE	BOSTON	JF	21.06	16.42
466	L STREET JET	JE	BOSTON	FO2	18.71	13.06
503	MYSTIC JET	JE	BOSTON	FO2	12.47	8.32
613	WATERS RIVER JET 2	JE	BOSTON	NG	45.56	30.26

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Asset ID	Unit Name	Unit Type	RTEP Sub-area RTEP03	Primary Fuel	Winter Rating (MW)	Summer Rating (MW)
625	WEST MEDWAY JET 1	JE	BOSTON	FO2	63.67	39.42
626	WEST MEDWAY JET 2	JE	BOSTON	FO2	52.93	35.66
1478	SITHE MYSTIC STATION EXPANSION BLOCK 8	CC	BOSTON	GAS	850.00	707.00
1616	SITHE MYSTIC STATION EXPANSION BLOCK 9	CC	BOSTON	GAS	850.00	707.00
2277	KENDALL STEAM	GT	BOSTON	GAS	61.00	60.00
457	LAWRENCE HYDRO	HD	BOSTON	H2O	14.10	9.40
499	MYSTIC 4	ST	BOSTON	FO6	89.95	99.75
500	MYSTIC 5	ST	BOSTON	FO6	90.90	91.63
501	MYSTIC 6	ST	BOSTON	FO6	99.63	107.39
502	MYSTIC 7	ST	BOSTON	FO6	559.78	554.85
527	OGDEN-MARTIN 1	ST	BOSTON	REF	41.06	40.94
546	RESCO SAUGUS	ST	BOSTON	REF	31.00	30.58
547	RESCO NO. ANDOVER	ST	BOSTON	REF	29.08	28.31
551	SALEM HARBOR 1	ST	BOSTON	BIT	83.99	82.00
552	SALEM HARBOR 2	ST	BOSTON	BIT	78.60	80.00
553	SALEM HARBOR 3	ST	BOSTON	BIT	149.91	149.29
554	SALEM HARBOR 4	ST	BOSTON	FO6	431.00	431.00
343	BLACKSTONE 1	ST	BOSTON	FO6	-	12.60
TOTAL BOSTON					3,993.63	3,613.45
461	UAE LOWELL POWER	CC	CMA/NEMA	NG	87.50	75.50
535	PEPPERELL	CC	CMA/NEMA	NG	40.12	33.14
1188	LOWELL COGENERATION PLANT	CC	CMA/NEMA	NG	28.00	25.00
442	CHERRY STREET 7-12	IC	CMA/NEMA	FO2	15.80	17.40
348	BOOT MILLS	HD	CMA/NEMA	H2O	20.00	20.00
624	WMI MILLBURY 1	ST	CMA/NEMA	REF	39.98	39.73
TOTAL CMA/NEMA					231.40	210.77
594	AES THAMES	AB	CT	BIT	182.15	181.00
324	AETNA CAPITOL DISTRICT	CW	CT	NG	61.33	55.25
392	DEXTER	CW	CT	NG	39.00	38.00
515	NORWICH JET	GT	CT	FO2	18.80	15.26
572	SO. MEADOW 11	GT	CT	JF	46.92	37.00
573	SO. MEADOW 12	GT	CT	JF	47.87	37.70
574	SO. MEADOW 13	GT	CT	JF	47.92	38.32
575	SO. MEADOW 14	GT	CT	JF	47.35	37.35
492	MONTVILLE 10 AND 11	IC	CT	FO2	5.48	5.30
420	FRANKLIN DRIVE 10	JE	CT	JF	20.84	15.73
478	MIDDLETOWN 10	JE	CT	JF	22.08	17.18
595	TORRINGTON TERMINAL 10	JE	CT	JF	21.14	16.03
596	TUNNEL 10	JE	CT	JF	21.49	17.10
484	MILLSTONE POINT 2	NP	CT	UR	867.91	871.55
485	MILLSTONE POINT 3	NP	CT	UR	1,145.75	1,130.47
362	BULLS BRIDGE	HD	CT	H2O	8.40	8.40
412	FALLS VILLAGE	HD	CT	H2O	11.00	9.76
544	RAINBOW	HD	CT	H2O	8.20	8.20
356	BRISTOL REFUSE	ST	CT	REF	12.74	13.20
411	EXETER	ST	CT	TI/	26.00	26.00
462	LISBON RESOURCE RECOVERY	ST	CT	REF	13.04	12.96
480	MIDDLETOWN 2	ST	CT	FO6	120.00	117.00
481	MIDDLETOWN 3	ST	CT	FO6	245.00	236.00
482	MIDDLETOWN 4	ST	CT	FO6	402.00	400.00
493	MONTVILLE 5	ST	CT	FO6	81.59	81.00
494	MONTVILLE 6	ST	CT	FO6	409.91	409.62
513	NEW HAVEN HARBOR	ST	CT	FO6	454.64	461.18
562	SECREC-PRESTON	ST	CT	REF	16.95	16.01
580	SO. MEADOW 5	ST	CT	REF	29.23	28.55
581	SO. MEADOW 6	ST	CT	REF	30.45	28.55
new	ENGLISH STATION 7	ST	CT	GAS	35.00	35.00
new	ENGLISH STATION 8	ST	CT	GAS	35.00	35.00
TOTAL CT					4,535.18	4,439.65
1083	ANDROSCOGGIN ENERGY CENTER	CC	ME	NG	155.61	127.90
1255	RUMFORD POWER	CC	ME	NG	269.75	244.94
331	AZISCOHOS HYDRO	HD	ME	H2O	6.81	6.81
358	BRUNSWICK	HD	ME	H2O	20.20	20.20

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Asset ID	Unit Name	Unit Type	RTEP Sub-area RTEP03	Primary Fuel	Winter Rating (MW)	Summer Rating (MW)
460	LOCKWOOD	HD	ME	H2O	7.50	7.50
487	MILLER HYDRO	HD	ME	H2O	-	-
495	MONTY	HD	ME	H2O	28.00	22.83
532	PEJEPSCOT	HD	ME	H2O	13.55	10.21
617	WESTON	HD	ME	H2O	13.20	13.20
621	WILLIAMS	HD	ME	H2O	14.90	14.90
758	FT HALIFAX	HD	ME	H2O	1.80	1.80
759	MESSALONSKEE COMPOSITE	HD	ME	H2O	4.40	4.34
761	SHAWMUT	HD	ME	H2O	9.50	9.50
328	GULF ISLAND COMPOSITE	HW	ME	H2O	32.97	32.97
432	HARRIS 1	HW	ME	H2O	16.78	16.79
433	HARRIS 2	HW	ME	H2O	34.86	34.95
434	HARRIS 3	HW	ME	H2O	34.16	34.21
636	WYMAN HYDRO 1	HW	ME	H2O	27.36	27.36
637	WYMAN HYDRO 2	HW	ME	H2O	29.87	29.87
638	WYMAN HYDRO 3	HW	ME	H2O	25.73	25.73
757	HARRIS 4	HW	ME	H2O	1.46	1.44
345	MEAD	ST	ME	BIO	75.00	75.00
429	GREENVILLE STEAM	ST	ME	WD	16.08	16.08
463	AEI LIVERMORE	ST	ME	WD	34.62	34.74
469	MASON 3	ST	ME	GAS	31.66	32.11
470	MASON 4	ST	ME	GAS	32.67	32.75
471	MASON 5	ST	ME	GAS	33.23	32.97
590	STRATTON	ST	ME	WD	46.11	45.02
1107	SOMERSET	ST	ME	BIO	9.70	9.70
TOTAL ME					1,027.46	965.81
1649	NEWINGTON ENERGY	CC	NH	GAS	542.63	528.46
464	LOST NATION	GT	NH	FO2	18.32	14.10
715	ROCHESTER LANDFILL	GT	NH	MTE	4.98	4.90
522	NEWPORT DIESELS 4-7	IC	NH	FO2	1.80	2.70
523	NEWPORT DIESELS 8-10	IC	NH	FO2	2.00	2.00
382	MERRIMACK CT1	JE	NH	JF	21.83	16.98
383	MERRIMACK CT2	JE	NH	JF	21.30	16.80
559	SCHILLER CT 1	JE	NH	JF	18.00	17.00
619	WHITE LAKE JET	JE	NH	JF	22.26	17.06
555	SEABROOK	NP	NH	UR	1,160.55	1,161.00
1625	AES GRANITE RIDGE	CC	NH	GAS	767.00	678.00
327	AMOSKEAG	HD	NH	H2O	17.50	17.50
330	AYERS ISLAND	HD	NH	H2O	9.08	9.08
401	EASTMAN FALLS	HD	NH	H2O	6.47	6.47
427	GORHAM	HD	NH	H2O	2.05	2.05
473	MCINDOES	HD	NH	H2O	13.00	13.00
539	PONTOOK HYDRO	HD	NH	H2O	10.16	7.07
570	SMITH	HD	NH	H2O	14.18	11.32
768	GARVINS/HOOKSETT	HD	NH	H2O	14.00	14.00
380	COMERFORD	HW	NH	H2O	162.34	161.43
449	JACKMAN	HW	NH	H2O	3.46	3.59
468	MARSHFIELD 6 HYDRO	HW	NH	H2O	4.50	4.67
496	MOORE	HW	NH	H2O	183.24	183.77
772	NEWPORT HYDRO	HW	NH	H2O	3.45	3.40
337	BETHLEHEM	ST	NH	WD	15.70	15.75
342	BIO ENERGY	ST	NH	WD	11.00	11.00
357	BRIDGEWATER	ST	NH	WD	15.55	15.75
436	HEMPHILL 1	ST	NH	WD	14.30	14.13
489	MERRIMACK 1	ST	NH	BIT	114.00	112.50
490	MERRIMACK 2	ST	NH	BIT	320.00	320.00
508	NEWINGTON 1	ST	NH	FO6	400.20	400.20
538	PINETREE POWER	ST	NH	WD	17.49	16.62
550	RYEGATE 1	ST	NH	WD	20.60	20.50
556	SCHILLER 4	ST	NH	BIT	48.00	47.50
557	SCHILLER 5	ST	NH	BIT	49.60	47.24
558	SCHILLER 6	ST	NH	BIT	48.58	47.94
592	TAMWORTH	ST	NH	WD	21.00	21.00
618	WHITEFIELD PWR AND LGT	ST	NH	WD	14.40	14.38

RTEP03– APPROVED BY THE ISO-NE BOARD OF DIRECTORS 11/13/03

Asset ID	Unit Name	Unit Type	RTEP Sub-area RTEP03	Primary Fuel	Winter Rating (MW)	Summer Rating (MW)
767	SES CONCORD	ST	NH	REF	12.76	12.69
	TOTAL NH				4,147.28	4,013.54
370	COS COB 10	JE	NOR	JF	22.78	18.52
371	COS COB 11	JE	NOR	JF	23.23	18.24
372	COS COB 12	JE	NOR	JF	20.63	18.57
521	NORWALK HARBOR 10 (3)	GT	NOR	FO2	-	-
349	BRIDGEPORT RESCO	ST	NOR	REF	59.42	59.06
519	NORWALK HARBOR 1	ST	NOR	FO6	164.00	162.00
520	NORWALK HARBOR 2	ST	NOR	FO6	172.00	168.00
	TOTAL NOR				462.05	444.39
486	MILFORD POWER	CC	RI	NG	170.73	149.00
507	NEA BELLINGHAM	CC	RI	NG	328.06	269.90
528	OCEAN ST PWR GT1/GT2/ST1	CC	RI	NG	316.93	271.80
529	OCEAN ST PWR GT3/GT4/ST2	CC	RI	NG	320.40	272.40
531	PAWTUCKET POWER	CC	RI	NG	66.45	63.84
1286	ANP BLACKSTONE 1	CC	RI	GAS	252.07	230.31
1287	ANP BLACKSTONE 2	CC	RI	GAS	252.41	222.31
1342	LAKE ROAD 1	CC	RI	GAS	258.42	222.80
1343	LAKE ROAD 2	CC	RI	GAS	266.87	231.25
1344	LAKE ROAD 3	CC	RI	GAS	272.49	236.87
1412	ANP BELLINGHAM 1	CC	RI	GAS	251.82	221.62
1415	ANP BELLINGHAM 2	CC	RI	GAS	251.82	221.62
1630	RISE	CC	RI	GAS	575.03	515.45
354	BRAYTON DIESELS 1-4	IC	RI	FO2	7.55	7.64
451	JOHNSTON LANDFILL	IC	RI	MTE	12.00	12.00
627	WEST MEDWAY JET 3	JE	RI	FO2	55.84	35.72
321	MANCHESTER 10/10A CC	CC	RI	NG	160.53	137.53
322	MANCHESTER 11/11A CC	CC	RI	NG	164.91	141.91
323	MANCHESTER 9/9A CC	CC	RI	NG	165.00	140.72
350	BRAYTON PT 1	ST	RI	BIT	254.75	243.51
351	BRAYTON PT 2	ST	RI	BIT	254.82	240.00
352	BRAYTON PT 3	ST	RI	BIT	633.00	612.00
353	BRAYTON PT 4	ST	RI	FO6	445.52	435.00
	TOTAL RI				5,737.42	5,135.19
375	CLEARY 9/9A CC	CA	SEMA	FO6	110.00	105.00
388	DARTMOUTH POWER	CA	SEMA	NG	68.18	61.80
540	POTTER 2 CC	CC	SEMA	NG	96.03	78.03
1005	DIGHTON POWER 1	CC	SEMA	NG	180.79	143.15
1226	TIVERTON POWER	CC	SEMA	NG	279.45	256.92
361	POTTER DIESEL 1	IC	SEMA	FO2	2.25	2.25
1030	OAK BLUFFS	IC	SEMA	FO2	8.25	8.00
1031	WEST TISBURY	IC	SEMA	FO2	5.50	5.50
579	SOMERSET JET 2	JE	SEMA	FO1	23.00	18.30
537	PILGRIM	NB	SEMA	UR	673.35	666.68
1691	SITHE EDGAR STATION EXPANSION (FORE RIVER)	CC	SEMA	GAS	843.00	700.00
365	CANAL 1	ST	SEMA	FO6	564.41	558.67
366	CANAL 2	ST	SEMA	FO6	562.00	553.00
376	CLEARY 8	ST	SEMA	FO6	26.00	26.00
563	SEMASS 1	ST	SEMA	REF	50.74	46.18
564	SEMASS 2	ST	SEMA	REF	24.32	20.85
577	SOMERSET 6	ST	SEMA	BIT	108.25	105.60
1432	FALL RIVER	ST	SEMA	FO6	5.90	5.20
	TOTAL SEMA				3,631.41	3,361.12

RTEP03- APPROVED BY THE ISO-NE BOARD OF DIRECTORS 11/13/03

Asset ID	Unit Name	Unit Type	RTEP Sub-area RTEP03	Primary Fuel	Winter Rating (MW)	Summer Rating (MW)
1345	WESTBROOK	CC	SME	GAS	551.19	511.56
367	CAPE GT 4	GT	SME	FO2	17.29	13.20
368	CAPE GT 5	GT	SME	FO2	20.65	16.31
369	CATARACT EAST	HD	SME	H2O	8.00	8.00
440	HIRAM	HD	SME	H2O	11.60	11.60
597	UNITED AMERICAN HYDRO	HD	SME	H2O	17.15	15.66
754	BAR MILLS	HD	SME	H2O	4.00	4.00
755	BONNY EAGLE/W. BUXTON	HD	SME	H2O	17.50	17.50
760	NORTH GORHAM	HD	SME	H2O	1.94	1.56
569	SKELTON	HW	SME	H2O	19.70	19.42
476	MERC	ST	SME	REF	18.86	18.86
542	REGIONAL WASTE SYSTEMS	ST	SME	REF	13.71	13.71
591	S.D. WARREN-WESTBROOK	ST	SME	WD	38.62	39.78
639	YARMOUTH 1	ST	SME	FO6	53.50	52.25
640	YARMOUTH 2	ST	SME	FO6	53.19	52.27
641	YARMOUTH 3	ST	SME	FO6	118.34	117.05
642	YARMOUTH 4	ST	SME	FO6	615.08	609.17
TOTAL SME					1,580.31	1,521.89
1032	BRIDGEPORT ENERGY 1	CC	SWCT	NG	527.12	447.88
397	DEVON 11	GT	SWCT	NG	39.57	30.61
398	DEVON 12	GT	SWCT	NG	39.03	30.83
399	DEVON 13	GT	SWCT	NG	42.33	33.33
400	DEVON 14	GT	SWCT	NG	40.19	29.62
341	BRIDGEPORT HARBOR 4	JE	SWCT	JF	14.72	9.92
355	BRANFORD 10	JE	SWCT	JF	21.28	16.17
new	MILFORD POWER 2 UNIT 1	CC	SWCT	GAS	262.22	245.00
new	MILFORD POWER 2 UNIT 2	CC	SWCT	GAS	262.22	245.00
1376	WALLINGFORD 1	GT	SWCT	GAS	48.95	44.50
1377	WALLINGFORD 2	GT	SWCT	GAS	52.38	41.38
1378	WALLINGFORD 3	GT	SWCT	GAS	50.51	45.61
1379	WALLINGFORD 4	GT	SWCT	GAS	47.46	42.18
1380	WALLINGFORD 5	GT	SWCT	GAS	52.02	41.02
389	DERBY DAM	HD	SWCT	H2O	7.05	7.05
566	SHEPAUG	HW	SWCT	H2O	42.56	41.51
587	STEVENSON	HW	SWCT	H2O	28.90	28.31
739	ROCKY RIVER	HW	SWCT	H2O	29.01	29.35
339	BRIDGEPORT HARBOR 2	ST	SWCT	FO6	157.68	152.45
340	BRIDGEPORT HARBOR 3	ST	SWCT	BIT	370.37	388.87
623	WALLINGFORD REFUSE	ST	SWCT	REF	6.90	6.35
TOTAL SWCT					2,142.47	1,956.94
329	ASCUTNEY GT	GT	VT	FO2	14.24	9.83
336	BERLIN 1 GT	GT	VT	FO1	47.65	35.49
363	BURLINGTON GT	GT	VT	FO2	22.96	19.71
415	FLORENCE 1 CG	GT	VT	FO2	4.09	3.15
416	FLORENCE 2 CG	GT	VT	FO2	4.04	3.15
426	GORGE 1	GT	VT	FO2	13.49	8.03
549	RUTLAND 5 GT	GT	VT	FO2	14.48	10.07
334	BELDENS	HD	VT	H2O	5.70	4.58
335	BELLOWS FALLS	HD	VT	H2O	48.54	48.54
346	BOLTON FALLS	HD	VT	H2O	7.80	7.80
394	DODGE FALLS	HD	VT	H2O	5.00	5.00
410	ESSEX 19 HYDRO	HD	VT	H2O	7.80	7.80
443	HUNTINGTON FALLS	HD	VT	H2O	5.76	4.37
541	PROCTOR	HD	VT	H2O	6.65	6.65
565	SHELDON SPRINGS	HD	VT	H2O	26.38	14.82
622	WINOOSKI 1	HD	VT	H2O	7.30	7.30
778	GORGE 18 HYDRO	HD	VT	H2O	3.30	3.30
779	MIDDLESEX 2	HD	VT	H2O	3.30	2.34
780	VERGENNES HYDRO	HD	VT	H2O	2.10	2.10
614	WATERBURY 22	HW	VT	H2O	2.60	2.80
620	WILDER	HW	VT	H2O	41.38	41.59
774	LOWER LAMOILLE COMPOSITE	HW	VT	H2O	16.35	15.80
775	MIDDLEBURY COMPOSITE	HW	VT	H2O	5.00	4.55
776	N. RUTLAND COMPOSITE	HW	VT	H2O	5.30	5.20

RTEP03– APPROVED BY THE ISO-NE BOARD OF DIRECTORS 11/13/03

Asset ID	Unit Name	Unit Type	RTEP Sub-area RTEP03	Primary Fuel	Winter Rating (MW)	Summer Rating (MW)
783	HIGHGATE FALLS	HW	VT	H2O	9.34	9.32
585	ST ALBANS 1 AND 2	IC	VT	FO2	2.40	2.22
598	VERGENNES 5 AND 6 DIESELS	IC	VT	FO2	4.05	3.95
1221	ESSEX DIESELS	IC	VT	FO2	1.90	3.15
611	VERMONT YANKEE	NB	VT	UR	529.08	506.00
474	J C MCNEIL	ST	VT	WD	53.00	52.00
	TOTAL VT				920.99	850.61
326	ALTRESCO	CC	WMA	NG	173.00	141.04
497	MASS POWER	CC	WMA	NG	270.00	231.50
1086	BERKSHIRE POWER	CC	WMA	NG	262.22	245.93
1185	STONY BROOK GT1A	CC	WMA	FO2	119.00	104.00
1186	STONY BROOK GT1B	CC	WMA	FO2	116.00	100.00
1187	STONY BROOK GT1C	CC	WMA	FO2	119.00	104.00
1210	MILLENNIUM	CC	WMA	GAS	386.80	339.13
583	STONY BROOK 2A	GT	WMA	FO2	87.40	67.40
584	STONY BROOK 2B	GT	WMA	FO2	85.30	65.30
1693	WEST SPRINGFIELD GT 1	GT	WMA	GAS	49.75	40.00
421	FRONT STREET DIESELS 1-3	IC	WMA	FO2	8.25	7.74
395	DOREEN	JE	WMA	JF	21.10	16.60
628	WOODLAND ROAD	JE	WMA	JF	21.00	16.70
630	WEST SPRINGFIELD 10	JE	WMA	JF	22.00	17.22
1694	WEST SPRINGFIELD GT 2	GT	WMA	GAS	49.75	40.00
393	DEERFIELD 5	HD	WMA	H2O	13.99	13.99
413	FIFE BROOK	HD	WMA	H2O	9.90	9.90
465	DEERFIELD 2/LWR DRFIELD	HD	WMA	H2O	18.74	18.74
561	SEARSBURG	HD	WMA	H2O	4.96	4.96
599	VERNON	HD	WMA	H2O	24.39	24.39
766	CABOT/TURNERS FALLS	HD	WMA	H2O	62.19	62.19
769	HADLEY FALLS 1&2	HD	WMA	H2O	31.50	31.50
781	WEST DANVILLE 1	HD	WMA	H2O	1.10	1.10
379	COBBLE MOUNTAIN	HW	WMA	H2O	30.60	30.86
435	HARRIMAN	HW	WMA	H2O	38.70	40.40
567	SHERMAN	HW	WMA	H2O	6.24	6.08
359	BEAR SWAMP 1	PS	WMA	H2O	292.28	282.51
360	BEAR SWAMP 2	PS	WMA	H2O	293.05	280.36
742	NORTHFIELD MOUNTAIN 1-4	PS	WMA	H2O	1,080.00	1,080.00
437	HOLYOKE 6/CABOT 6	ST	WMA	FO6	6.00	8.76
438	HOLYOKE 8/CABOT 8	ST	WMA	FO6	9.00	8.70
498	MT TOM	ST	WMA	BIT	146.98	144.43
582	SPRINGFIELD REFUSE	ST	WMA	REF	6.00	6.00
633	WEST SPRINGFIELD 3	ST	WMA	FO6	100.09	102.55
	TOTAL WMA				3,966.27	3,693.98

Notes:

West Medway Jets 1 & 2 are now in BOSTON whereas in RTEP02 they were in RI
 Lawrence Hydro is now in BOSTON whereas in RTEP02 it was in CMA/NEMA
 Vernon Hydro is now in WMA whereas in RTEP02 it was in CMA/NEMA
 W. Danville 1 Hydro is now in WMA whereas in RTEP02 it was in NH
 Marshfield 6 Hydro is now in NH whereas in RTEP02 it was in VT

USGen New England, Inc.
Salem Harbor Station
DTE 03-83
Record Request DTE-RR-2
Responsible Person: Michael A. Fitzgerald
Date: January 20, 2004

DTE-RR-2: Please provide the current emissions from the Station of NO_x and SO₂ on a pounds per megawatt hour basis.

Response: The most current data available regarding current and baseline emissions from the Station is as follows:

Coal Units Only

	SO ₂	NO _x
For Year 2002	10.6	2.8
For Years '97-99	13.0	3.7

Entire Facility

	SO ₂	NO _x
For Year 2002	10.7	2.9
For Years '97-99	15.8	3.5

USGen New England, Inc.
Salem Harbor Station
DTE 03-83
Record Request DTE-RR-3
Responsible Person: Michael A. Fitzgerald
Date: January 20, 2004

DTE-RR-3: Please provide the reduction in NO_x on a pounds per megawatt hour basis that resulted from operating the SNCR system on a year-round basis, as mandated by the ACO.

Response: Reduction in NO_x lbs/MWH (all SNCR as per Ozone Season)

Coal Units Only (only units w/SNCR)

	NOx lbs/MWH
10/1-12/31/2003	2.7
10/1-12/31/2002	2.9

Note that there have been only three months to date (10/1-12/31/2003) of operation outside of Ozone Season according to Ozone Season parameters.

USGen New England, Inc.
Salem Harbor Station
DTE 03-83
Record Request DTE-RR-4
Responsible Person: Michael A. Fitzgerald
Date: January 20, 2004

DTE-RR-4: Please provide the reduction in NO_x on a pounds per megawatt hour basis that resulted from the burner tip optimization program on Salem Unit 4, mandated by the ACO.

Response: A test program was conducted in June 2003 on Salem Harbor Unit 4 boiler to compare the performance of the existing burner tips with a new style tip developed by Combustion Components Associates, Inc (CCA), the supplier of the original burner tips. CCA designed and supplied the tips, performed the testing, conducted the data collection and wrote the final report, dated July 25, 2003. The original tips, named Vee Jets, were analyzed at four load points, the tips were swapped out and the new design burner tips, named Split Flame, were compared at the same operating conditions. The objective of the program was to compare the emissions performance between the two tips as well as determine if any differences in furnace heat flux resulted. During the base test program the boiler fired No. 6 fuel oil with a sulfur content of nominally 1% and a nitrogen content of 0.37%wt. Following the base program, a very low sulfur oil was fired with the Split Flame tips having a nominal sulfur content of no more than 0.3% with a nitrogen content of 0.31%wt and an emissions profile was developed at the same four load points as the base program.

Prior to the testing program, all 24 oil guns were sent to CCA, were factory reconditioned and cleaned to ensure optimum performance. Airflow balancing at each burner was conducted to ensure fuel to air ratios were consistent between each burner. Testing was conducted at each of four loads, 150, 250, 350 and 410 MW net. At each load point, CEM emissions and furnace heat flux probe data were monitored by the boiler DCS computer and logged by the PI system. Furnace exit gas temperature (FEGT) and flue gas samples were monitored for emission concentrations at the secondary superheater inlet also known as the furnace outlet. These data were used for SNCR performance modeling consistent with the ACO schedule.

The final report demonstrates the Split Flame tips provided a NO_x reduction of 10% compared with the Vee Jets at similar operating conditions. Carbon monoxide (CO) levels were monitored to ensure no increase was caused while lowering NO_x levels. CO levels were held constant while testing both tips. In addition to the NO_x reduction, the heat flux was reduced by an average of 20%. The reduction in heat flux is due to a combination of flame patterns and the ability to have more burners in service at a given load providing more

even heat distribution in the furnace. Because of the favorable NO_x and heat flux performance of the Split Flame burner tips, the Station decided to replace the Vee Jets with the Split Flame style burner tips.

It must be noted that NO_x performance will vary with fuel oils, and with furnace and oil gun conditions. Comparing NO_x performance of different fuel oils is not a consistent comparison since varying the nitrogen content of the oil will have a direct impact on the NO_x performance. As a result, the given NO_x performance of any burner tip may not be consistent when burning fuel oil with different nitrogen levels whereby the NO_x emissions can vary by as much as 20-25%. In addition to fuel nitrogen content, other impacts to NO_x performance are burner gun cleanliness, excess oxygen levels of the flue gas in the combustion zone and furnace fireside cleanliness. NO_x performance will fluctuate with furnace cleanliness. Flue gas heat absorption rates vary with cleanliness and will alter the global furnace temperature. The balance of NO_x formation is flue gas temperature dependant as NO_x production varies directly with the square of the temperature.

USGen New England, Inc.
Salem Harbor Station
DTE 03-83
Record Request DTE-RR-5
Responsible Person: Michael A. Fitzgerald
Date: January 20, 2004

DTE-RR-5: Please provide the data on carbon monoxide and ammonia emissions from the Project that were contained in USGenNE's 7.02 plan approval application that was submitted to DEP.

Response: As required under the June 2003 Administrative Consent Order (ACO), the Station proposed the installation of a Selective Non-Catalytic Reduction (SNCR) control system on Unit 4 in a 7.02 Plan Approval Application submitted to DEP on July 11, 2003, to reduce NO_x emissions by approximately 376 tons per year. The SNCR control system involves urea, (NH₂)₂CO, that is converted to ammonia, vaporized and injected into the upper furnace region of the boiler. Excess ammonia that does not react with NO_x is emitted out the exhaust stack and is commonly referred to as ammonia slip. SNCR systems tend to have greater ammonia slip than Selective Catalytic Reduction (SCR) systems. As part of the plan approval application and Best Available Control Technology (BACT) requirements, the Station considered conventional SCR control systems, as well as SNCR with SCR catalyst in the flue gas stream, to achieve ammonia slip levels as low as 2 ppmvd @ 3% O₂. Both alternatives were deemed economically infeasible, based on dollars per ton ammonia removed. As a result, the facility will implement SNCR retrofit controls on Unit 4 to reduce NO_x emissions, and will meet an ammonia slip emission limit of 10 ppmvd @ 3% O₂, specified in Condition 3.4 of Exhibit D to the ACO. This ammonia slip concentration in the flue gas exhaust stream is equivalent to 100 tons per year of potential ammonia emissions from Unit 4.

The decomposition of urea generates additional CO emissions in the boiler flue gas. The Station estimates that the SNCR retrofit will result in an increase potential CO emissions from Unit 4 of 20 ppm. This increase in potential CO concentration corresponds to an increase of 328 tons per year of potential CO emissions from Unit 4. As part of the plan approval application and BACT requirements, the Station considered all potential CO control technologies to minimize the increase in potential CO emissions from use of SNCR. The only known add-on control device effective for controlling CO emissions is an oxidation catalyst, but it was determined that an oxidation catalyst is not feasible for Unit 4. Oxidation catalysts are often used for reduction of CO emissions from gas-fired combustion turbine facilities. For residual fuel oil-fired facilities such as Unit 4, the boiler flue gas environment is more severe, with relatively high SO₂ levels and particulates that contain potassium oxide-based alkalis. SO₂ emissions, and to a lesser extent the

heavy metals in the fine particulate, would deactivate the oxidation catalyst at an unacceptable rate, i.e., potentially as short as a few days.

With an oxidation catalyst being infeasible, the Station will instead employ good combustion practices, involving control of the amount and distribution of combustion air in the furnace, to maintain optimum combustion efficiency and minimize CO emissions. The plan approval application included a proposal to increase the CO emission limit from 100 ppmvd @ 7% O₂ (equivalent to 130 ppmvd @ 3% O₂) to 150 ppmvd @ 3% O₂.

The Station's 7.02 plan approval application for Unit 4 is currently under review by the DEP, and the ammonia and CO emissions data in this Record Request response are as proposed in the application, rather than as approved by DEP.